

Guiding Principles for the Care of Older Adults with Multimorbidity Pocket Card

FROM THE AMERICAN GERIATRICS SOCIETY

This Clinical Tool, based on the 2012 *Patient-Centered Care for Older Adults with Multiple Chronic Conditions: A Stepwise Approach from the American Geriatrics Society*, has been developed to assist healthcare providers implement the 5 Guiding Principles in taking care of an Older Adults with Multimorbidity.

“More than 50% of older adults have three or more chronic diseases.”¹ By definition, older adults with multimorbidity are heterogeneous in terms of severity of illness, functional status, prognosis, and risk of adverse events even when diagnosed with the same pattern of conditions. Priorities for outcomes and health care also vary. Thus, not only the individuals themselves, but also the treatments that clinicians consider for them will differ.

The adoption of these guiding principles may improve healthcare and outcomes for older adults with multiple conditions. Patients should be evaluated, and care plans should be designed and implemented according to the individual needs of each patient, with the recognition that few studies are currently available that have rigorously evaluated the effectiveness of approaches related to these guiding principles.

The full document, together with accompanying resources, can be viewed online at americangeriatrics.org.

Approach to the evaluation and management of the older adult with multimorbidity.

Inquire about the patient's *primary concern* (and that of family and friends, if applicable) and any additional objectives for visit.

Conduct a *complete review* of care plan for person with multimorbidity.
 OR
 Focus on *specific aspect* of care for person with multimorbidity.

What are the current medical conditions and interventions?
 Is there adherence to and comfort with treatment plan?

Consider *patient preferences*.

Is relevant *evidence* available regarding important outcomes?

Consider *prognosis*.

Consider *interactions* within and among treatments and conditions.

Weigh *benefits* and *harms* of components of the treatment plan.

Communicate and *decide* for or against implementation or continuation of intervention/ treatment.

Reassess at selected intervals: for benefit, feasibility, adherence, alignment with preferences.

Guiding Principle I: Patient Preferences Domain	
Elicit and incorporate patient preferences into medical decision-making for older adults with multimorbidity.	
How to Use in Clinical Practice	
Goal	Implementation Strategies & Resources
Elicit patient preferences according to the individual situation.	<p>Keep in Mind::</p> <ul style="list-style-type: none"> • Less complex situations require abbreviated decision-making; • More complex situations with multiple options may require several steps.
Recognize when decisions are “preference-sensitive” for the patient.	<ul style="list-style-type: none"> • Know which factors are most important to each patient; • Examples of preference-sensitive decisions: <ol style="list-style-type: none"> 1. therapy that may improve one condition but make another worse; 2. therapy that may confer long-term benefits but cause short-term harm; 3. multiple medications with benefits and harms that must be balanced.
Ensure that patients are adequately informed about benefits and harms of treatment options.	<ul style="list-style-type: none"> • Consider effects of treatments and interventions, particularly side effects, which may be seen as important outcomes for the patient. • Provide numerical likelihoods of specific outcomes if available: <ol style="list-style-type: none"> 1. include probabilities of the outcome occurring or not occurring; 2. present absolute rather than relative risk; 3. use visual aids. • Assess patient understanding of the information, e.g., using a “teach back” technique.
Elicit patient preferences only after the individual is sufficiently informed, using appropriate tools.	<p>Decision aids are available, but may not be able to accommodate different comorbidity and risk factor profiles;</p> <p>Resources:</p> <ul style="list-style-type: none"> • Decision analysis: a “decision tree” can facilitate decisions by identifying and quantifying all potential treatment outcomes; • Conjoint analysis: assigns scores to characteristics of treatment outcomes to assess which are most important to individual patients; • Patient prioritization: The patient chooses among sets of universal health outcomes to identify those most important to the individual, e.g., living as long as possible, being pain-free, maintaining function, and then chooses treatment options based on most desired outcomes.
Accommodate the individual’s decision-making style, while acknowledging that all patients want their opinions to guide choices.	<p>Decision styles include:</p> <ol style="list-style-type: none"> 1. Patient prefers to make decisions; 2. Patient prefers that healthcare provider decides; 3. Shared decision-making preferred; 4. Patient prefers involvement of family, friends, caregivers in decision-making; <p>Keep in Mind:</p> <ul style="list-style-type: none"> • Patients with cognitive impairment may rely on significant others as surrogates to act with healthcare providers to make decisions for them. • Preferences may change over time, and should be re-examined, especially with a change in health status. • Patients cannot demand any and all treatments if these options do not have a reasonable expectation of some benefit.

Guiding Principle II: Interpreting the Evidence Domain	
Recognizing the limitations of the evidence base, interpret and apply the medical literature specifically to older adults with multimorbidity.	
How to Use in Clinical Practice	
Goal	Implementation Strategies & Resources
Consider certain key principles in evaluating clinical evidence.	<p>Consider:</p> <ul style="list-style-type: none"> • Applicability and quality of evidence; • Outcomes; • Harms and burdens; • Absolute risk reduction; • Time horizon to benefit.
Ascertain whether the evidence applies to older adults with multimorbidity and whether it has been rigorously evaluated.	<p>Key questions:</p> <ul style="list-style-type: none"> • Does the individual being considered resemble the research population? • Does multimorbidity modify the effect of the intervention? • Were older adults with or without multimorbidity included in the study? • Are the design and analysis of the study of high quality? • If the evidence comes from a randomized clinical trial, are the results applicable to older adults with multimorbidity? (Observational studies often can provide additional information, but have challenges related to confounding.)
Focus on outcomes.	<p>Key considerations:</p> <ul style="list-style-type: none"> • clear identification of expected treatment outcomes; • importance of outcomes to the patient; • variations in baseline risk (in order to validate expectations for treatment); • risks and side effects of interventions in older patients with multimorbidity (to avoid exacerbation of co-morbidities); • comparator treatments or strategies; • time to benefits; • precision and confidence limits of analyses.
Weigh anticipated benefits against potential harms and burdens.	<p>Key considerations:</p> <ul style="list-style-type: none"> • Studies may be too short-term to give adequate assessment of harms; • Treatment burdens experienced by patients are rarely included in study reports; • Exacerbation of coexisting conditions may be caused by following treatment guidelines for another condition; • Adherence may be impacted by financial costs and difficulties of regimens; • Treatment interactions in older adults with multimorbidity may occur
Clarify risk reduction.	<p>Key considerations:</p> <ul style="list-style-type: none"> • Results expressed as relative risk reduction (RRR) are not the same as those expressed by absolute risk reduction (ARR). • ARR is based on the risk of an outcome without treatment minus outcome with treatment, or on the difference of two comparative treatments. • RRR usually appears much more impressive than ARR. • If baseline risk is not reported, RRR is uninterpretable since the baseline risk may be different for older multimorbid adults compared to the general population, and there may be greater variability. • Baseline risks may be reported in single-disease guidelines, observational studies, prognostic indices, or control groups of single disease trials.
Identify time horizon to benefit.	<p>Key questions:</p> <ul style="list-style-type: none"> • What is the sample size of the study? • What is the duration of follow-up? • If evidence is expressed in number needed to treat (NNT) or number needed to harm (NNH), is a time period to outcome reported? • Is the older adult with multimorbidity at risk of dying from a comorbidity before benefitting from a treatment (e.g., tight glucose control in diabetes).

Guiding Principle III: Prognosis Domain

Frame clinical management decisions within the context of risks, burdens, benefits, and prognosis (e.g., remaining life expectancy, functional status, quality of life) for older adults with multimorbidity.

How to Use in Clinical Practice

Goal	Tools, Resources, Strategies
Incorporate prognosis into clinical decision-making.	<ul style="list-style-type: none"> • Frame a focused clinical question; • Determine the outcome being predicted (e.g., remaining life expectancy, functional ability, quality of life, or a condition-specific risk such as stroke); • Select a prognosis measure, while recognizing its strengths and weaknesses; • Estimate prognosis; • Integrate this information into the decision-making process.
Prioritize decisions based on life expectancy or other relevant outcomes.	<p>Minimize treatments or interventions unlikely to provide benefit and limit harms without benefit by making decisions based on prognosis categories :</p> <ul style="list-style-type: none"> • short-term (death expected within the next year/highest priority) – address issues such as advance directives, need for aggressive glucose control, physical therapy; • mid-term (death expected within the next 5 years) • long-term (death expected beyond five years).
Offer to discuss prognosis.	<p>Many older adults wish to discuss prognosis but some do not. Offer clinical information within the context of specific ethnic and cultural considerations for older patients, addressing principles of:</p> <ul style="list-style-type: none"> • patient autonomy (e.g., self-determination); • beneficence (e.g., promotion of patient well-being); • non-maleficence; • justice.
Identify situations in which a determination of prognosis may help inform clinical decision-making.	<ul style="list-style-type: none"> • When making decisions about treatment or prevention (e.g., whether to start/stop a medication or insert/replace a device); • Disease screening (e.g., for cognitive decline, cancer, osteoporosis); • Change in clinical status of patient (e.g., weight loss, functional decline, after a fall); • Change of health service utilization (e.g., decisions about hospitalization or initiation of aggressive ICU care).
Choose an appropriate prognostic measure, based on its relevance to the individual patient.	<p>Examples of measures for specific diseases</p> <ul style="list-style-type: none"> • The Seattle Heart Failure Model • The BODE Index • ADEPT • STOPP/START (Screening Tool to Alert to Right Treatment and Screening Tool of Older Persons' potentially inappropriate Prescriptions) • Cancer screening <p>Life tables:</p> <ul style="list-style-type: none"> • Prognostic index based on 6 risk factors for the year following acute hospitalization • Planning for final years of life <p>Measures based on functional status:</p> <ul style="list-style-type: none"> • Role of gait speed in survival • Chronic disability as the strongest negative risk factor for survival <p>Integrated measures:</p> <ul style="list-style-type: none"> • 4-year prognostic index • 5- and 9-year survival indices • Vulnerable Elders-13 Survey (VES-13) <p>Measures based on advanced illness:</p> <ul style="list-style-type: none"> • Palliative Prognostic Score (PaP) • Palliative Performance Scale (PPS)
Decide what prognostic information to share with patient and family.	<p>Base choice of measure on:</p> <ul style="list-style-type: none"> • patient-stated preferences • overall evaluation of evidence.

Guiding Principle IV: Clinical Feasibility Domain

Consider treatment complexity and feasibility when making clinical management decisions for older adults with multimorbidity.

How to Use in Clinical Practice

Goal	Tools, Resources, Strategies
Assess ability of the older person with multimorbidity to adhere to the treatment plan on an ongoing basis.	<p>Consider:</p> <ul style="list-style-type: none"> • Treatment complexity increases with multimorbidity. • Assessments must be individualized. • Patient-centered discussions must occur in collaboration with the support system (family, caregivers). <p>Tools available to measure medication management capacity:</p> <ul style="list-style-type: none"> • Medication Management Ability Assessment (MMAA) • Drug Regimen Unassisted Grading Scale (DRUGS) • Hopkins Medication Schedule (HMS) • Medication Management Instrument for Deficiencies in the Elderly. (MedMalDE)
Clinical feasibility and individual preferences should inform treatment choices.	<p>Key considerations:</p> <ul style="list-style-type: none"> • Evidence-based medicine alone is not an adequate guide; • Reliance on condition-specific guidelines results in overly complex regimens that reduce adherence.
Identify treatment complexity with patient participation.	<ul style="list-style-type: none"> • Discuss adherence and individual preferences with the older adult with multimorbidity; • Suggest education programs that teach patients self-management skills for setting realistic goals and learning how to reach them.
Address conflicts between wishes of prescribers versus those of the older adult with multimorbidity.	<ul style="list-style-type: none"> • Discussion and re-evaluation must be ongoing; • Patient education should be provided; • Care transitions offer good opportunities to re-evaluate adherence and treatment complexity.

Guiding Principle V: Prognosis Domain

Frame clinical management decisions within the context of risks, burdens, benefits, and prognosis (e.g., remaining life expectancy, functional status, quality of life) for older adults with multimorbidity.

How to Use in Clinical Practice

Goal	Tools, Resources, Strategies
Identify interventions that should not be initiated or should be stopped. Identify interventions that should be started.	<ul style="list-style-type: none"> Factors to consider include: <ol style="list-style-type: none"> Likelihood of benefit in terms of altering the person's baseline risk for the particular outcome; Risk of harm; Difference between the time horizon to benefit and the patient's likely remaining life expectancy (prognosis).
Identify and reduce potentially inappropriate medications.	<ul style="list-style-type: none"> Medications to avoid (consistent across multiple criteria): benzodiazepines and tricyclic antidepressants <p>Resources:</p> <ul style="list-style-type: none"> 2012 AGS Beers Criteria: Information on drugs that should be avoided in older adults. (http://www.americangeriatrics.org) Screening Tool to Alert to Right Treatment and Screening Tool of Older Persons' potentially inappropriate Prescriptions (START/STOPP).
Identify medications with a higher risk of adverse events (falls, impaired cognition).	<p>Resources:</p> <ul style="list-style-type: none"> Medication Appropriateness Index (MAI) <p>Sedative and/or anticholinergic indices</p> <ul style="list-style-type: none"> Drug Burden Index (DBI) Anticholinergic Risk Scale (ARS)
Carefully consider recommendations for implantable cardiovascular electronic devices.	<ul style="list-style-type: none"> HRS Expert Consensus Statement
Consider non-pharmacologic approaches to limit side effects and address polypharmacy.	<ul style="list-style-type: none"> Some examples are physical therapy, enjoyable and feasible physical activities, and other lifestyle modifications consistent with individual preferences.
Discontinue medications appropriately.	<ul style="list-style-type: none"> Certain drug classes, especially those that act on the cardiovascular or central nervous system, need to be discontinued cautiously, as these are most often associated with adverse drug withdrawal events including exacerbation of underlying disease. If there is uncertainty about discontinuing a medication, a time-limited withdrawal can help clarify whether the medication was needed in the first place. Ideally medications should be stopped one at a time. When further assistance is needed, clinicians should partner with pharmacists and other healthcare providers to optimize medication selection and management. <p>Resource: The Good Palliative-Geriatric Practice algorithm</p>

The Guiding Principles for the Care of Older Adults with Multimorbidities, as well as supporting professional and public education tools, can be found at americangeriatrics.org.

These include:

- *Guiding Principles for the Care of Older Adults with Multimorbidity: An Approach for Clinicians*
- Summary Document: *Patient-Centered Care for Older Adults with Multiple Chronic Conditions: A Stepwise Approach from the American Geriatrics Society*
- Full Pocket Card References
- 2012 AGS Annual Meeting Presentation on the Guiding Principles
- Related Public Education Materials

Also available at americangeriatrics.org...

AGS 2012 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

The AGS 2012 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (AGS 2012 Beers Criteria) is the most recent update of the Beers Criteria originally developed in 1991 by the late Mark Beers, MD. The AGS 2012 Beers Criteria catalogues 53 medications, or classes of medications, that may cause adverse drug events in older adults due to their pharmacologic properties and the physiologic changes of aging.

The AGS 2012 Beers Criteria and the following supporting professional and public education tools and resources, can be found at americangeriatrics.org:

Clinical Tools:

- *Beers Criteria* Teaching Slides
- *Beers Criteria* Pocket Card
- *Beers Criteria* Mobile App

Public Education Resources

- AGS Beers Criteria Summary - For Patients & Caregivers
- 10 Medications Older Adults Should Avoid
- 10 Medications Older Adults Should Avoid – En Español
- Avoiding Overmedication and Harmful Drug Reactions
- What to Do and What to Ask Your Healthcare Provider if a Medication You Take is Listed in the *Beers Criteria*
- My Medication Diary – Printable Download
- Eldercare at Home: Using Medicines Safely – Illustrated PowerPoint Presentation

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